

The QNAP logo is displayed in white, bold, uppercase letters within a blue rounded rectangular box in the top-left corner of the page.

QNAP

TS-x83XU

TS-883XU

TS-883XU-RP

TS-1283XU-RP

User Guide

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1. Important Information

Original Packaging

Please keep the original packaging and packaging materials. If you want to return the product or send it for repairs, please use the original packaging to avoid damage.

QNAP reserves the right not to provide a refund or warranty service for products that are damaged due to improper packaging.

Hardware Defects

If your QNAP product has hardware defects, return the product to QNAP or a QNAP-authorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third-party invalidates the warranty.

QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications.

For details, see the [QNAP Warranty Terms and Conditions](#).

Safety information

The following instructions help ensure personal safety and environmental safety. Read these instructions carefully before performing any operation.

General Instructions

- The device should be stored in a secure location with restricted access, controlled through the use of a tool, lock and key, or any means of security.
- Only qualified, skilled, and authorized persons with knowledge of all restrictions, safety precautions, and installation and maintenance procedures should have physical access to the device.

WARNING



To avoid potential injury or damage to components, ensure that the drives and other internal system components have cooled before touching them.



Observe electrostatic discharge (ESD) procedures to avoid potential injury or damage to components.

Power

WARNING



To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.



Devices with redundant power supply may have one or more power supply unit (PSU) cords. To avoid serious injuries, a trained service technician must disconnect all PSU cords from the device before installing or replacing system components.

Moving Parts

WARNING



Moving fan blades: Keep your body parts away from any moving fan blades while the device is connected to a power source.



Moving components: Keep your body parts away from any other moving components.

The device is not suitable for use in locations where children are likely to be present.

System Battery

WARNING



INGESTION HAZARD

- This product may contain a button battery.
- Keep batteries out of reach of children.
- If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.
- If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

- To avoid potential battery explosion, causing injury or damage to components, ensure that you replace the existing battery with a battery of the same type.

- Dispose of used batteries properly according to local regulations or the instructions of the battery manufacturer.
- Even used batteries may cause severe injury or death.
- Call a local poison control center for treatment information.
- For information on the type and voltage of the button battery in your device, please see the hardware specification table.
- Non-rechargeable batteries are not to be recharged.
- Do not force discharge, recharge, disassemble, heat, or incinerate. Doing so may result in injury due to venting, leakage, or explosion resulting in chemical burns.
- Ensure the batteries are installed correctly according to polarity (+ and -).
- Do not mix old and new batteries, or different brands or types of batteries, such as alkaline, carbon-zinc, or rechargeable batteries.
- Remove and immediately recycle or dispose of batteries from equipment not used for an extended period of time according to local regulations.
- Always completely secure the battery compartment. If the battery compartment does not close securely, stop using the product, remove the batteries, and keep them away from children.

Rail Kits

Rackmount models may require rail kits for installation onto a server rack or cabinet.

To ensure equipment and personal safety, please carefully read the installation instructions for your rail kit before you install the rail kit and mount your device.

To check if your device is a rackmount unit, see the hardware specification table.

WARNING

- When the rail kit is installed on the server rack, do not fully extend and unlatch the rails except when mounting or unmounting a device.
- Leaving the rails fully extended out and unlatched may cause heavy equipment to fall. This can cause equipment damage and severe or even fatal injuries.
- Before you prepare the rails for device mounting or unmounting, please carefully read and ensure you understand the installation instructions.
- Do not place any objects or add any extra load onto the device or rails when mounting or unmounting a device.
- When mounting a device, slide the device all the way into the server rack to fully latch the rails and secure the device to the server rack.

2. Product Overview

This chapter provides basic information about the QNAP TS-x83XU NAS.

About the TS-x83XU

Powered by an Intel® Xeon™ E-2124 processor, the TS-x83XU is an enterprise-class series NAS. The series supports different disk storage configurations to better meet your virtualization and data storage needs. It also features four Long-DIMM memory slots, scaling up to 64GB of memory, several expansion card slots, and various input/output (I/O) ports for better scalability and flexibility.

Hardware Specifications

Warning

If your QNAP product has hardware defects, return the product to QNAP or a QNAP-authorized service center for maintenance or replacement. Any attempt to repair or perform maintenance procedures on the product by you or an unauthorized third-party invalidates the warranty.

QNAP is not responsible for any damage or data loss caused by unauthorized modifications and installation of unsupported third-party applications.

For details, see the [QNAP Warranty Terms and Conditions](#).


Ordering P/N	CPU	Memory	Power supply
TS-883XU-E2124-8G	Intel® Xeon™ E-2124	8 GB	Single
TS-883XU-RP-E2124-8G	Intel® Xeon™ E-2124	8 GB	Redundant
TS-1283XU-RP-E2124-8G	Intel® Xeon™ E-2124	8 GB	Redundant

Component	TS-883XU TS-883XU-RP	TS-1283XU-RP
Processor		
CPU	Intel® Xeon™ E-2124	Intel® Xeon™ E-2124
Frequency	4-core 3.3 GHz	4-core 3.3 GHz
Architecture	x86 64-bit	
Encryption engine	AES-256	

Component	TS-883XU TS-883XU-RP	TS-1283XU-RP
Memory		
Pre-installed memory	8 GB RAM: 2 x 4 GB DDR4	
Memory slots	4 x Long-DIMM DDR4 <div data-bbox="466 568 1385 846" style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>Important</p> <p>Use only QNAP memory modules to maintain system performance and stability. For NAS devices with more than one memory slot, use QNAP modules with identical specifications.</p> <p>Using unsupported modules may degrade performance, cause errors, or prevent the operating system from starting.</p> </div>	
Maximum memory	64 GB RAM: 4 x 16 GB	
Flash memory	4 GB (dual boot OS protection)	
Storage		
Drive bays	8 x 3.5-inch SATA 6 Gbps bays	12 x 3.5-inch SATA 6 Gbps bays
Drive compatibility	<ul style="list-style-type: none"> • 3.5-inch SATA hard disk drives • 2.5-inch SATA hard disk drives • 2.5-inch SATA solid-state drives <div data-bbox="466 1406 1385 1572" style="background-color: #fff9c4; padding: 10px; margin-top: 10px;"> <p>Important</p> <p>2.5-inch drive trays only support drives with a maximum height of 9.5 mm.</p> </div>	
Network		
10 Gigabit Ethernet ports	2 x 10GbE SFP+ SmartNIC	
Gigabit Ethernet ports	4 x GbE RJ45	
External I/O Ports & Expansion Slots		

Component	TS-883XU TS-883XU-RP	TS-1283XU-RP
PCIe slots	<ul style="list-style-type: none"> • 1 x PCIe 2.0 (x4) • 1 x PCIe 3.0 (x8) • 2 x PCIe 3.0 (x4) <div style="border: 1px solid #ccc; background-color: #f0f8ff; padding: 5px; margin-top: 10px;"> <p>Note A dual-port 10 GbE SFP+ network expansion card is pre-installed on PCIe 3.0 slot 4.</p> </div>	<ul style="list-style-type: none"> • 1 x PCIe 2.0 (x4) • 1 x PCIe 3.0 (x8) • 2 x PCIe 3.0 (x4) <div style="border: 1px solid #ccc; background-color: #f0f8ff; padding: 5px; margin-top: 10px;"> <p>Note A dual-port 10 GbE SFP+ network expansion card is pre-installed on PCIe 3.0 slot 4.</p> </div>
<p>Tip For the list of compatible expansion cards, go to https://www.qnap.com/compatibility.</p>		
USB ports	<ul style="list-style-type: none"> • 2 x USB 3.1 Gen 2 (10Gbps) Type-C (5V/3A) • 4 x USB 3.1 Gen 2 (10Gbps) Type-A (5V/1A) 	
Interface		
Buttons	<ul style="list-style-type: none"> • Power • Reset 	
Dimensions		
Form factor	2U Rackmount	2U Rackmount
Dimensions (H x W x D)	88.3 x 482 x 562 mm (3.47 x 18.98 x 22.13 in)	88.3 x 482 x 562 mm (3.47 x 18.98 x 22.13 in)
Net weight	<ul style="list-style-type: none"> • TS-883XU: 10.39 kg (22.91 lbs) • TS-883XU-RP: 10.99 kg (24.23 lbs) 	11.75 kg (25.90 lbs)
Others		
Rail compatibility		

Component	TS-883XU TS-883XU-RP	TS-1283XU-RP
Rail compatibility	RAIL-B02 Note <ul style="list-style-type: none"> • Rail kits are not included with the NAS and must be purchased separately. For details, contact an authorized reseller or go to http://shop.qnap.com. • Information on rail kit installation can be found in the installation guide included in the rail kit package. 	
Power supply unit	<ul style="list-style-type: none"> • TS-883XU: 350W, 100-240V AC, 50/60Hz • TS-883XU-RP: 2 x 300W, 100-240V AC, 50/60Hz 	2 x 300W, 100-240V AC, 50/60Hz
Warning To reduce the risk of fire or electric shock, ensure that you only connect the power cord to a properly grounded electrical outlet.		
System battery	CR2032 lithium battery (3V, 225 mAh) Warning To avoid potential battery explosion, causing injury or damage to components, ensure that you replace the existing battery with a battery of the same type. Important Dispose of used batteries according to local regulations or the instructions of the battery manufacturer.	
Sound level	<ul style="list-style-type: none"> • TS-883XU: 40.3 db(A) • TS-883XU-RP: 42 db(A) 	40.6 db(A)
Note The sound level was tested at a bystander position, which is within one meter of the NAS. The test NAS operated at low speed with the maximum number of drives installed.		

Component	TS-883XU TS-883XU-RP	TS-1283XU-RP
Fans	System: 2 x 60 mm, 12V DC	
	<p>Warning</p>  <p>To avoid potential injury or damage to components, do not touch the fans while the NAS is connected to a power source.</p>	
Operating temperature	0°C to 40°C (32°F to 104°F)	
Relative humidity	<ul style="list-style-type: none"> • Non-condensing relative humidity: 5% to 95% • Wet-bulb temperature: 27°C (80.6°F) 	

Tip

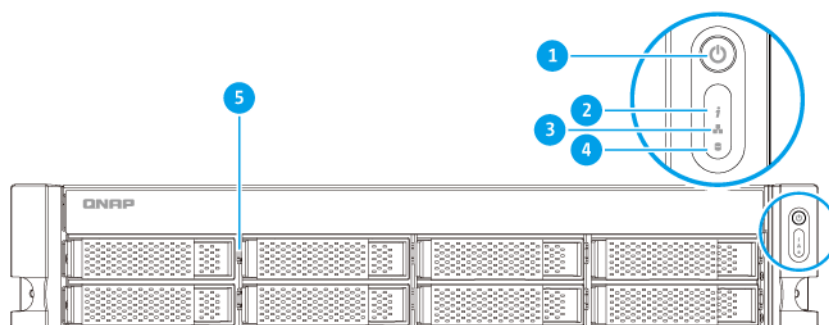
Model specifications are subject to change without prior notice. To see the latest specifications, go to <https://www.qnap.com>.

Package Contents

Item	Quantity
TS-x83XU NAS	1
Power cord	<ul style="list-style-type: none"> • TS-883XU: 1 • TS-883XU-RP: 2 • TS-1283XU-RP: 2
Ethernet cable	2
Screws for 2.5-inch drives	TS-883XU, TS-883XU-RP: 24 TS-1283XU-RP: 36
Screws for 3.5-inch drives	TS-883XU, TS-883XU-RP: 32 TS-1283XU-RP: 48
Quick Installation Guide (QIG)	1

Components

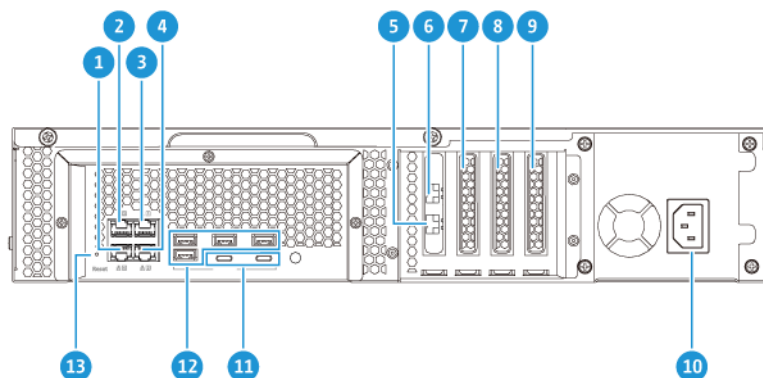
Front panel



TS-883XU, TS-883XU-RP, TS-1283XU-RP

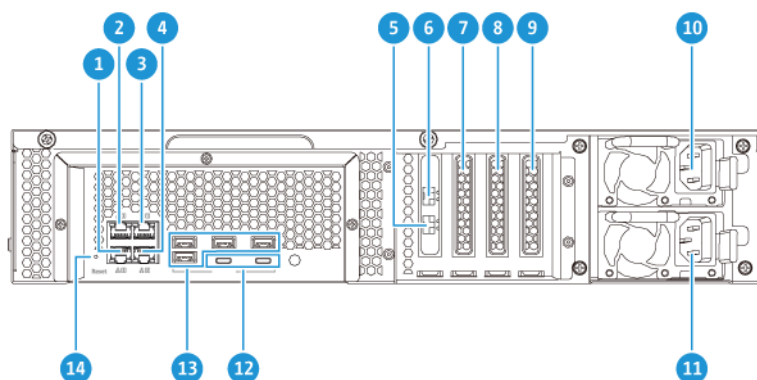
No.	Component	No.	Component
1	Power button	4	Expansion unit LED
2	Status LED	5	Drive LEDs
3	LAN LED	-	-

Rear Panel



TS-883XU

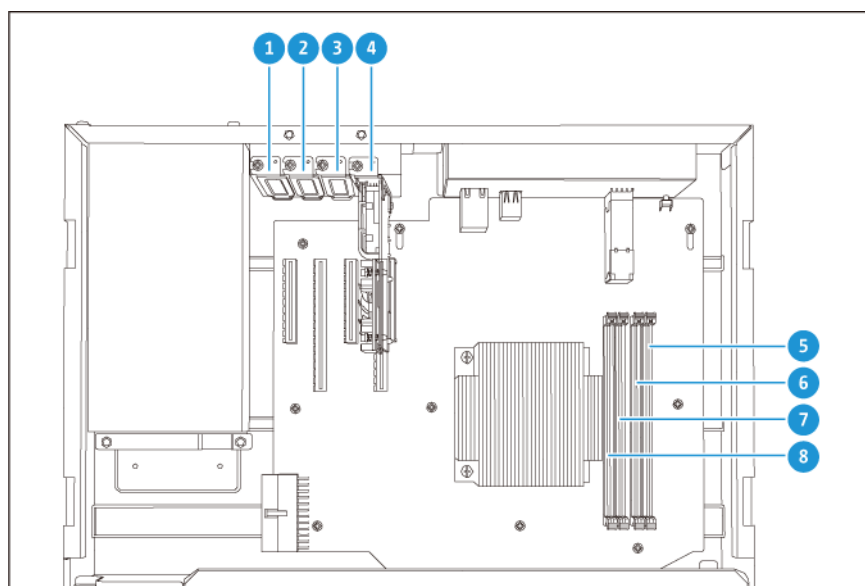
No.	Component	No.	Component
1	Ethernet port 4 (GbE RJ45)	8	PCIe 3.0 slot 2 (x8)
2	Ethernet port 3 (GbE RJ45)	9	PCIe 2.0 slot 1 (x4)
3	Ethernet port 1 (GbE RJ45)	10	Power input
4	Ethernet port 2 (GbE RJ45)	11	USB 3.1 Gen 2 Type-C ports
5	Ethernet port 6 (10 GbE SFP+)	12	USB 3.1 Gen 2 Type-A ports
6	Ethernet port 5 (10 GbE SFP+)	13	Reset button
7	PCIe 3.0 slot 3 (x4)	-	-



TS-883XU-RP, TS-1283XU-RP

No.	Component	No.	Component
1	Ethernet port 4 (GbE RJ45)	8	PCIe 3.0 slot 2 (x8)
2	Ethernet port 3 (GbE RJ45)	9	PCIe 2.0 slot 1 (x4)
3	Ethernet port 1 (GbE RJ45)	10	Power supply unit 1
4	Ethernet port 2 (GbE RJ45)	11	Power supply unit 2
5	Ethernet port 6 (10 GbE SFP+)	12	USB 3.1 Gen 2 Type-C ports
6	Ethernet port 5 (10 GbE SFP+)	13	USB 3.1 Gen 2 Type-A ports
7	PCIe 3.0 slot 3 (x4)	14	Reset button

System Board

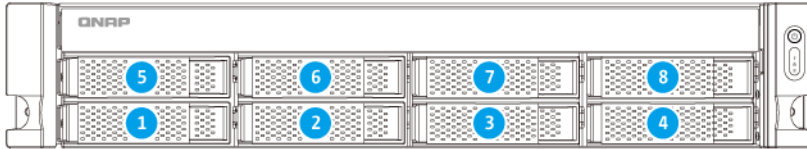


TS-883XU, TS-883XU-RP, TS-1283XU-RP

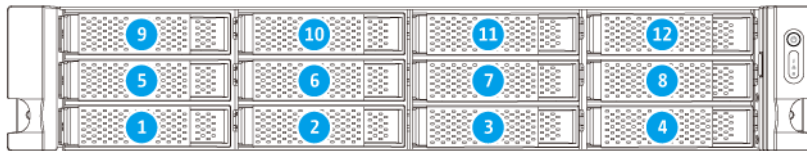
No.	Component	No.	Component
1	PCIe 2.0 slot 1 (x4)	5	Memory slot 1
2	PCIe 3.0 slot 2 (x8)	6	Memory slot 2
3	PCIe 3.0 slot 3 (x4)	7	Memory slot 3
4	PCIe 3.0 slot 4 (x4)	8	Memory slot 4

Note
A dual-port 10 GbE SFP+ network expansion card is pre-installed on this PCIe slot.

Drive Numbering



TS-883XU, TS-883XU-RP



TS-1283XU-RP

Installation Requirements

Category	Item
Environment	<ul style="list-style-type: none"> • Room temperature: 0°C to 40°C (32°F to 104°F) • Non-condensing relative humidity: 5% to 95% • Wet-bulb temperature: 27°C (80.6°F) • Flat, anti-static surface without exposure to direct sunlight, liquids, or chemicals
Hardware and peripherals	<ul style="list-style-type: none"> • Storage drives For details on compatible drives, go to https://www.qnap.com/compatibility/. • Network cable
Tools	<ul style="list-style-type: none"> • Phillips #1 or #2 screwdriver • Anti-static wrist strap

Setting up the NAS

Important

Read all safety requirements and information in [Safety Information](#) carefully before setting up the NAS or installing NAS components.

1. Place your NAS device in an environment that meets the requirements.
For details, see [Installation Requirements](#).
2. Install the drives.
For details, see the following topics:
 - [Installing 3.5-inch Hard Drives on 3.5-inch Trays](#)
 - [Installing 2.5-inch Hard Drives or Solid State Drives on 3.5-inch Trays](#)
3. Connect the power cord and all applicable cables.
4. Power on the NAS.
5. Install QTS.
For details, see [QTS Installation](#).
6. Log on to QTS.

3. Installation and Configuration

This chapter provides specific hardware and firmware installation and configuration steps.

Hardware Installation

This section provides information on installing drives, memory modules, and expansion cards.

Drive Installation

The TS-x83XU is compatible with 3.5-inch and 2.5-inch hard drives, and 2.5-inch solid state drives.

Installing 3.5-inch Hard Drives on 3.5-inch Trays

Warning

- Installing a drive and installing QTS deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.



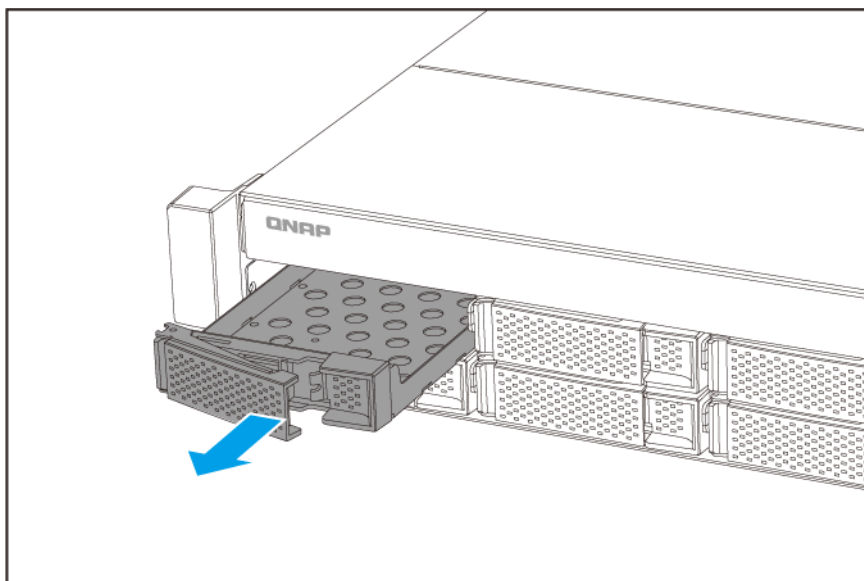
Moving fan blades: Keep your hands and other body parts away from moving fan blades.



Other moving components: Keep your hands and other body parts away from other moving components.

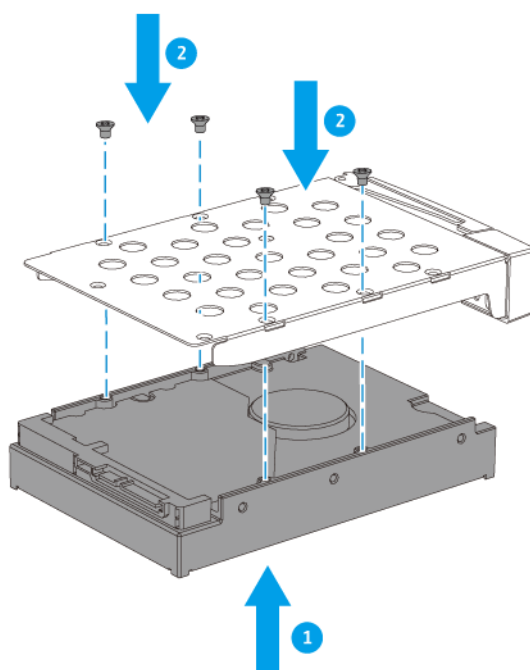
1. Power off the NAS.
2. Remove the drive tray.
 - a. Pull the handle to release the tray.

- b.** Pull the tray out.



- 3.** Install a drive on the tray.

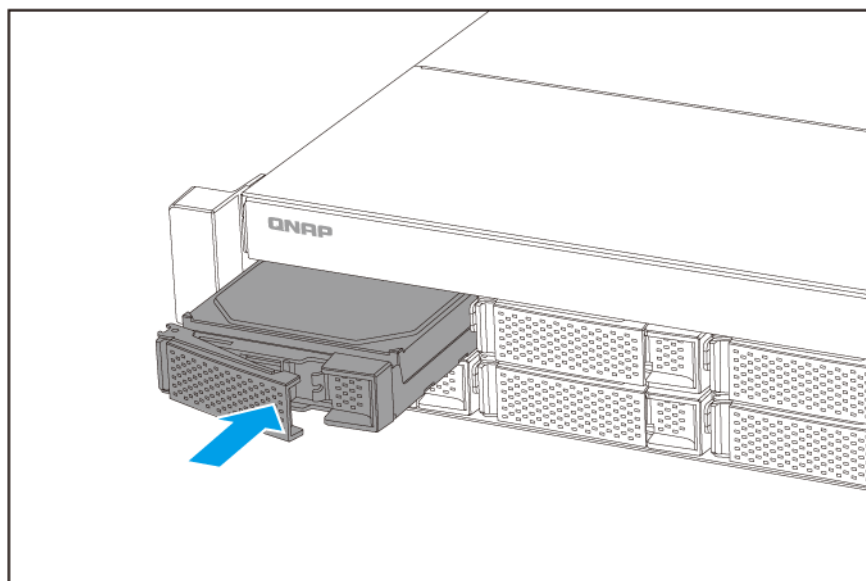
- a.** Place the drive on the tray so that the holes on the bottom of the drive are aligned with the holes on the bottom of the tray.
 - b.** Attach the screws to lock the drive to the tray.



- 4.** Load the tray into the bay.

- a.** Slide the tray into the drive bay.

- b. Push the handle.



5. Power on the NAS.

Installing 2.5-inch Hard Drives or Solid State Drives on 3.5-inch Trays

Warning

- Installing a drive and installing QTS deletes all data on the drive.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.



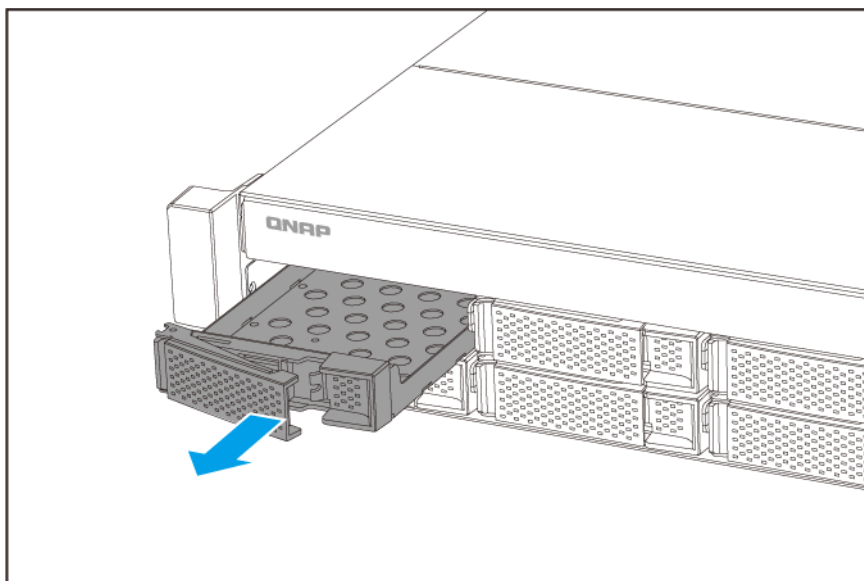
Moving fan blades: Keep your hands and other body parts away from moving fan blades.



Other moving components: Keep your hands and other body parts away from other moving components.

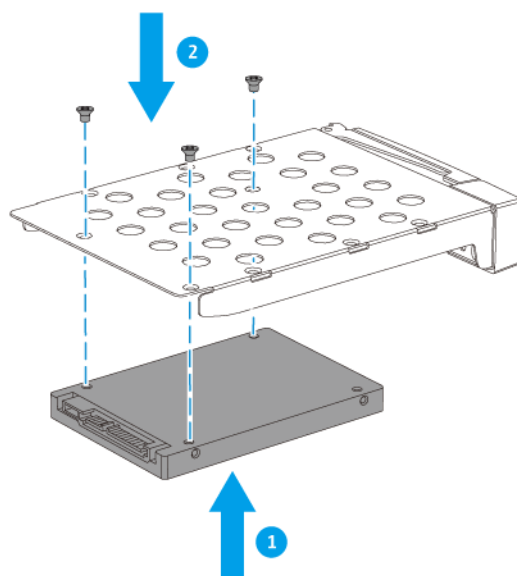
1. Power off the NAS.
2. Remove the drive tray.
 - a. Pull the handle to release the tray.

- b.** Pull the tray out.



- 3.** Install a drive on the tray.

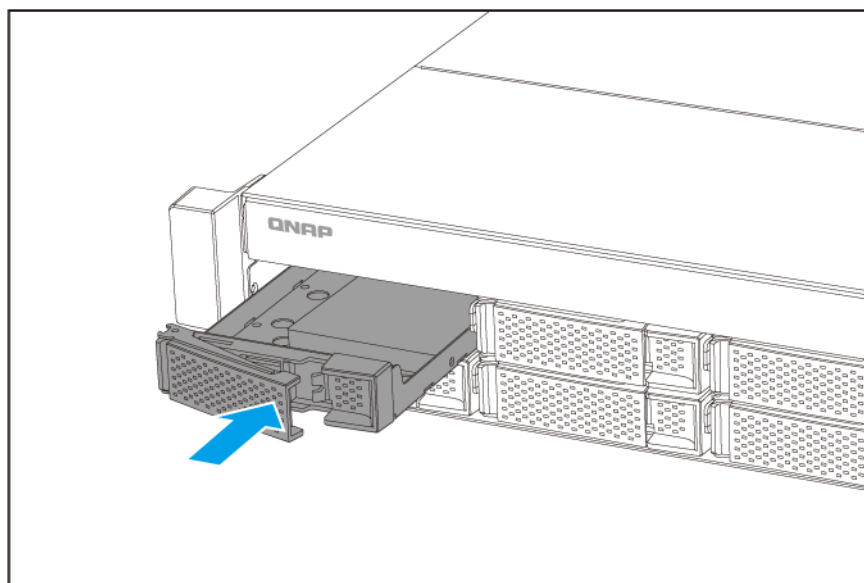
- a.** Place the drive on the tray so that the holes on the bottom of the drive are aligned with the holes on the bottom of the tray.
- b.** Attach the screws to lock the drive to the tray.



- 4.** Load the tray into the bay.

- a.** Slide the tray into the drive bay.

- b. Push the handle.



5. Power on the NAS.

Expansion Unit Installation

The TS-x83XU supports SAS expansion units.

Type	Description	Required Accessories
SAS	<ul style="list-style-type: none"> • Uses a SAS 12 Gbps interface • Supports a maximum of eight expansion units • Supports SAS/SATA HDD/SSD 	<ul style="list-style-type: none"> • SAS-12G2E storage expansion card • mini-SAS SFF-8644 cable • RAIL-A03-57 rail kit

Connecting SAS Expansion Units

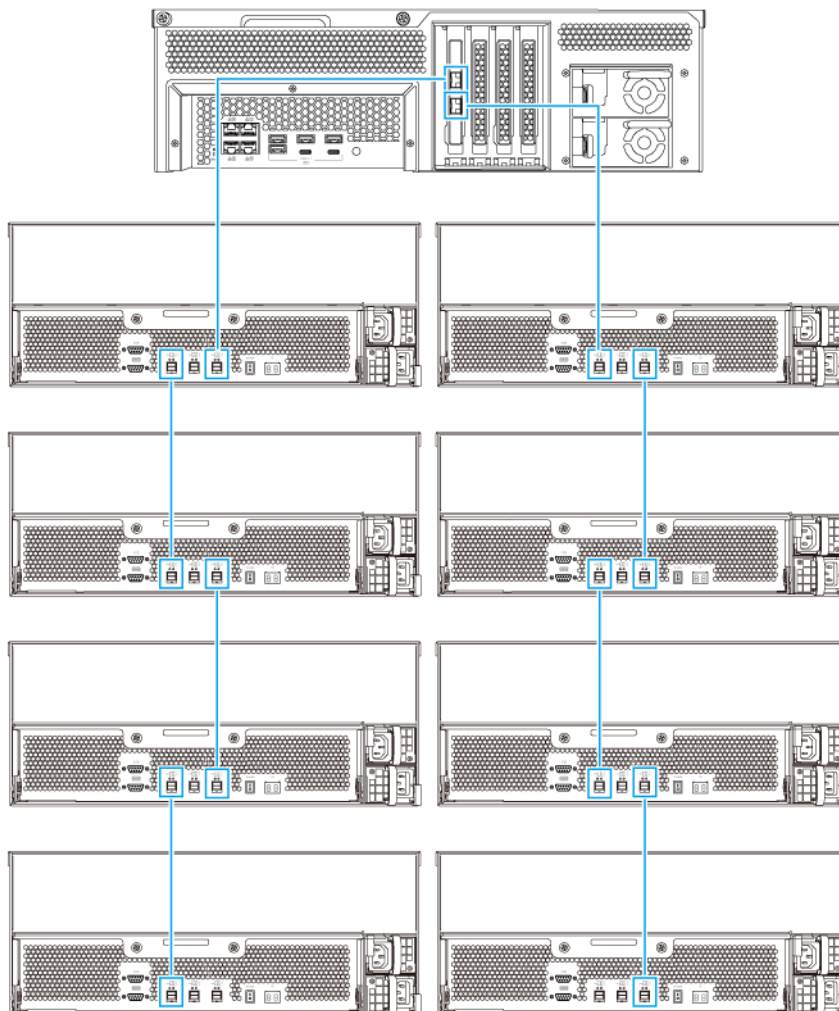
The TS-x83XU supports a maximum of eight SAS expansion units and is compatible with the following models:

- REXP-1210U-RP
- REXP-1220U-RP
- REXP-1610U-RP
- REXP-1620U-RP

To use SAS expansion units, an SAS-12G2E storage expansion card must be installed on the NAS and connected to the expansion units using mini-SAS SFF-8644 cables. You can purchase storage expansion accessories from QNAP or an authorized reseller.

For details, go to <https://shop.qnap.com/>.

1. Install a storage expansion card on the PCIe slot.
For details, see [Installing Expansion Cards](#).
2. Connect the expansion units to the NAS using the following topology.



3. Power on the expansion units.
4. Verify that the expansion units are recognized by the NAS.
 - a. Log on to QTS as administrator.
 - b. Go to **Main Menu > Storage & Snapshots > Overview > System**.
 - c. Verify that the expansion units are listed.

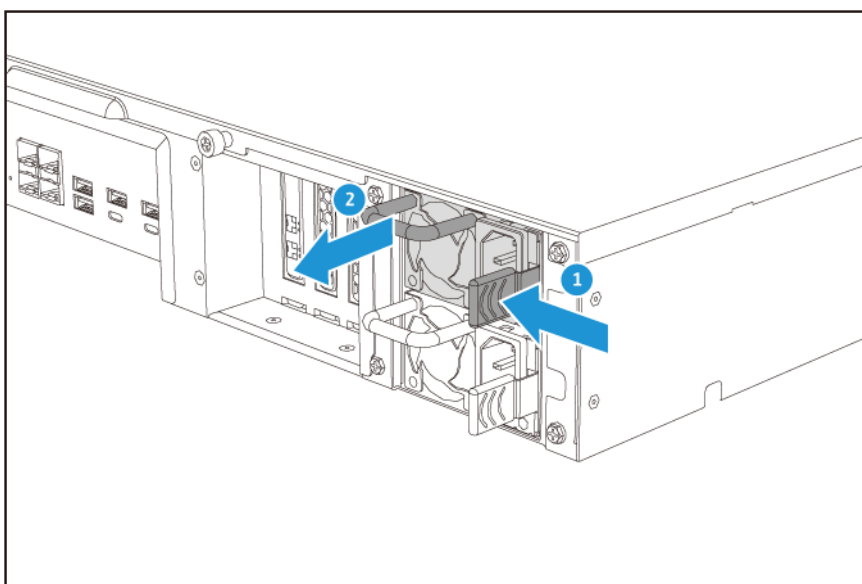
Hot-swapping Redundant Power Supplies

NAS devices with redundant power supply units (PSUs) support hot-swapping.

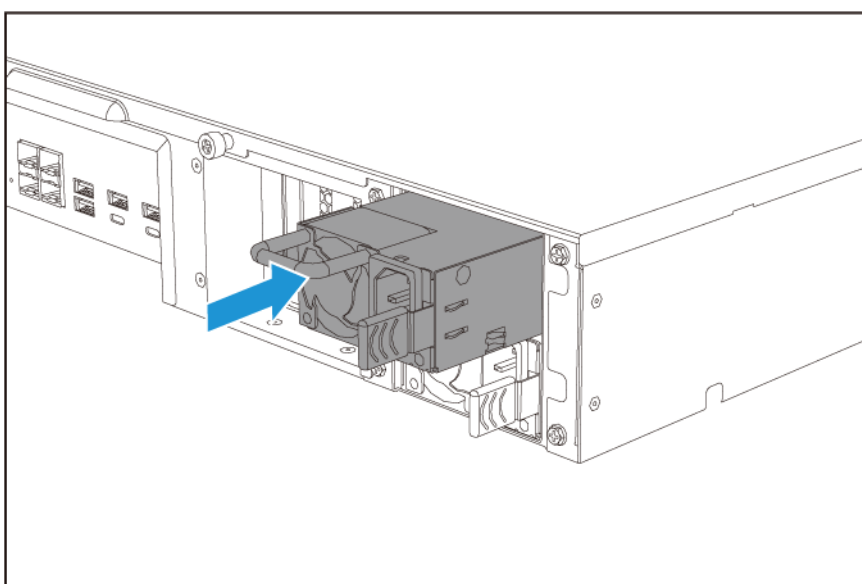
Warning

The NAS may have one or more power supply unit (PSU) cords. To avoid serious injuries, a trained service technician must disconnect all PSU cords before installing or replacing system components.

1. Power off the NAS.
2. Disconnect the power cord from the electrical outlet and the PSU that you are replacing.
3. Firmly press the latch toward the handle and then pull the PSU out.



4. Insert the new PSU.



5. Connect the power cord to the PSU and the electrical outlet.

6. Power on the NAS.
7. Enable alerts for PSU failures.
 - a. Log on to QTS as administrator.
 - b. Go to **Control Panel > System > Hardware > General**.
 - c. Select **Enable Redundant Power Supply Mode**.
 - d. Click **Apply All**.

Removing Expansion Cards

The NAS supports selected expansion cards, some of which require QNAP PCIe brackets. QNAP-branded expansion cards purchased from the company website are shipped with the brackets necessary to fit all QNAP NAS models.

Note

A dual-port 10 GbE SFP+ network expansion card is pre-installed on PCIe 3.0 slot 4.

Warning

- Only qualified personnel should perform the following steps. Failure to follow instructions can result in serious injury or death.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.



Moving fan blades: Keep your hands and other body parts away from moving fan blades.

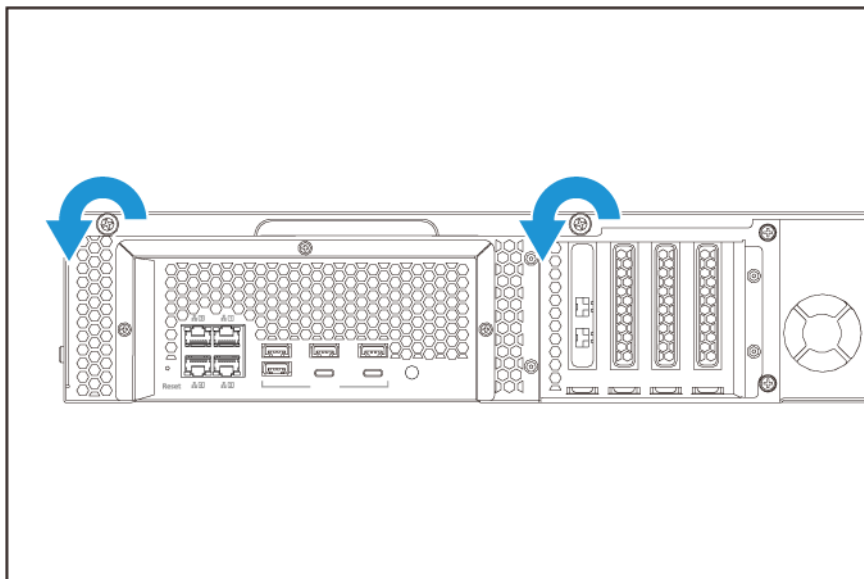


Other moving components: Keep your hands and other body parts away from other moving components.

1. Power off the NAS.
2. Disconnect the power cord from the electrical outlet.
3. Disconnect all cables and external attachments.

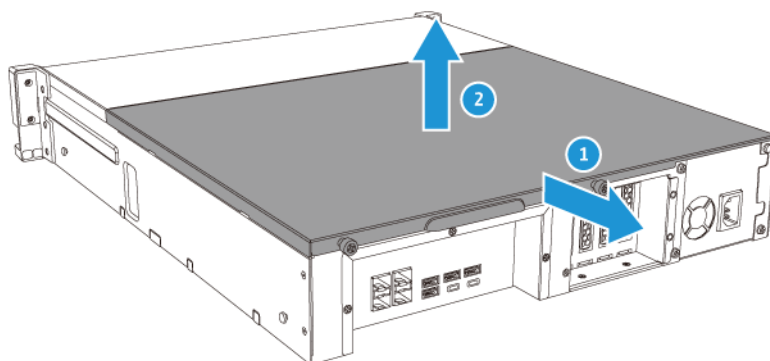
4. Remove the top cover.

- a.** Loosen the two screws on the back of the top cover.

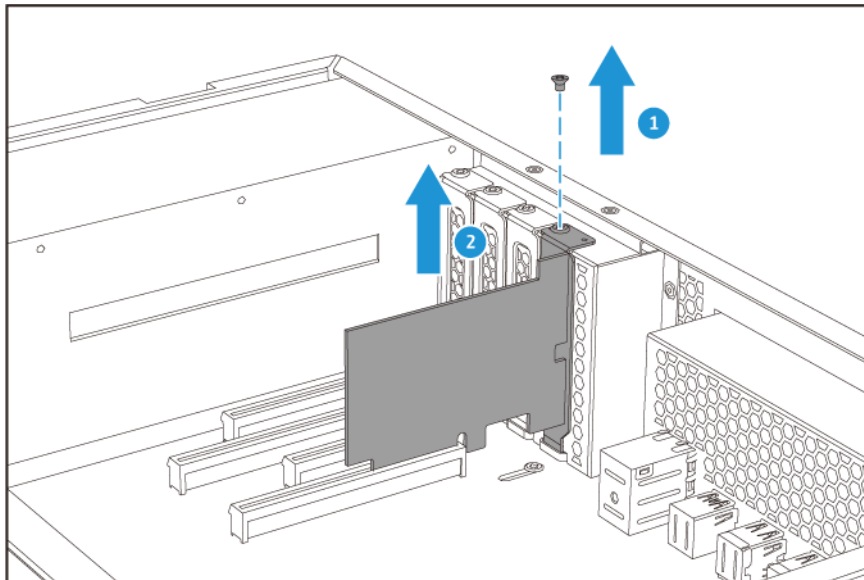


- b.** Slide the top cover back using the handle.

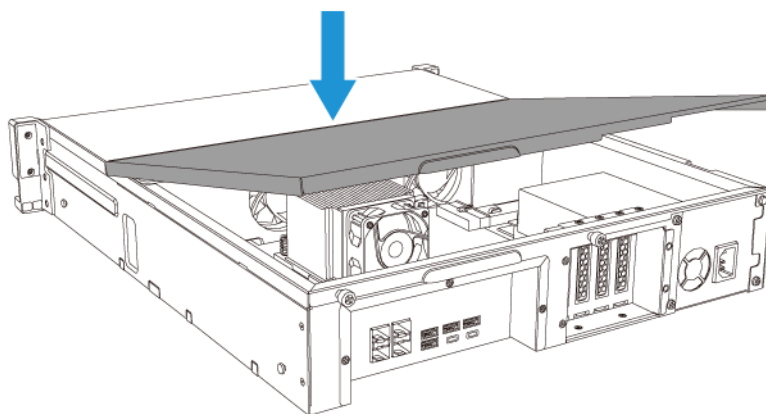
- c.** Lift the top cover up.



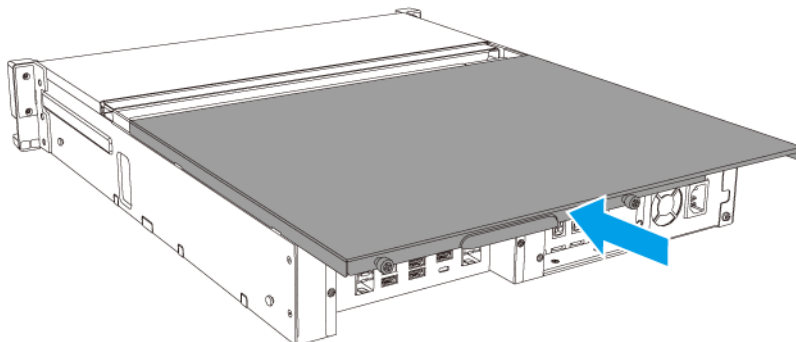
5. Remove the existing expansion card.
 - a. Remove the screw that secures the PCIe bracket to the chassis.
 - b. Hold the card by the edges and then carefully pull it out of the slot.



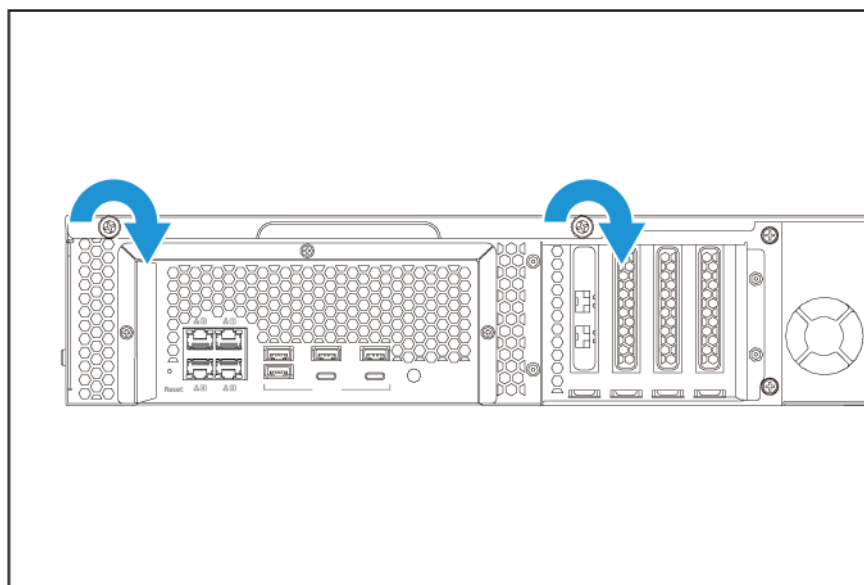
6. Install a new expansion card. For details, see [Installing Expansion Cards](#).
7. Attach the top cover.
 - a. Place the top cover on the NAS.



- b.** Slide the top cover forwards.



- c.** Tighten the screws.



- 8.** Connect all cables and external attachments.
- 9.** Connect the power cord to the electrical outlet.
- 10.** Power on the NAS.

Installing Expansion Cards

The NAS supports selected expansion cards, some of which require QNAP PCIe brackets. QNAP-branded expansion cards purchased from the company website are shipped with the brackets necessary to fit all QNAP NAS models.

Note

A dual-port 10 GbE SFP+ network expansion card is pre-installed on PCIe 3.0 slot 4.

Warning

- Only qualified personnel should perform the following steps. Failure to follow instructions can result in serious injury or death.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.



- **Moving fan blades:** Keep your hands and other body parts away from moving fan blades.

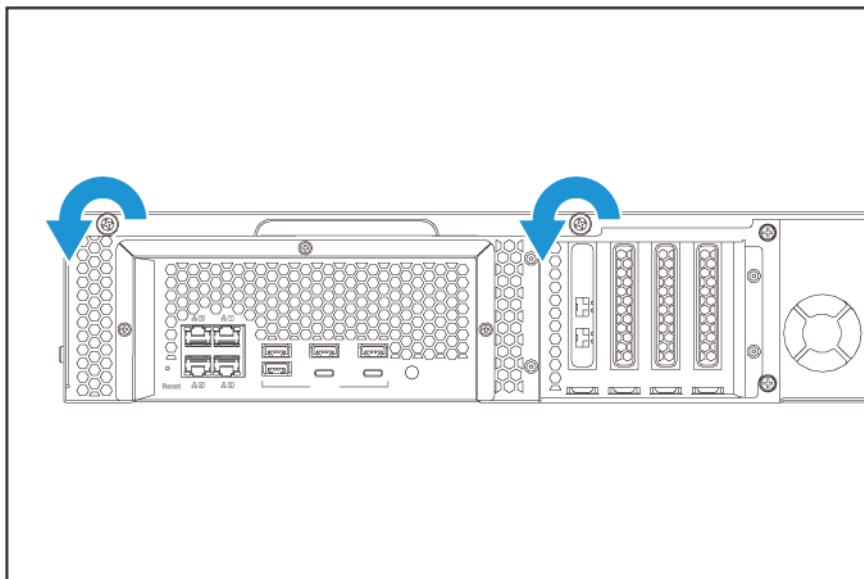


- **Other moving components:** Keep your hands and other body parts away from other moving components.

1. Check the expansion cards and brackets supported by your model on the QNAP website.
 - a. Go to www.qnap.com/compatibility.
 - b. Click **Search by NAS**.
 - c. Specify the number of bays and the specific model of your NAS.
 - d. Under **Category**, select the component or device type.
 - e. Locate a specific component or device model in the list.
 - f. Optional: Click the corresponding **Note** icon to view more information.
2. Power off the NAS.
3. Disconnect the power cord from the electrical outlet.
4. Disconnect all cables and external attachments.

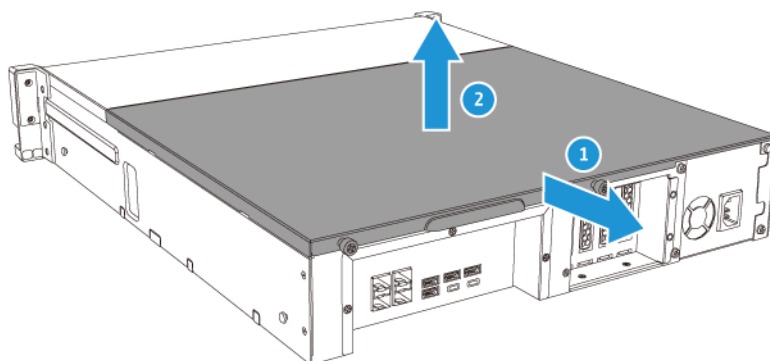
5. Remove the top cover.

- a.** Loosen the two screws on the back of the top cover.

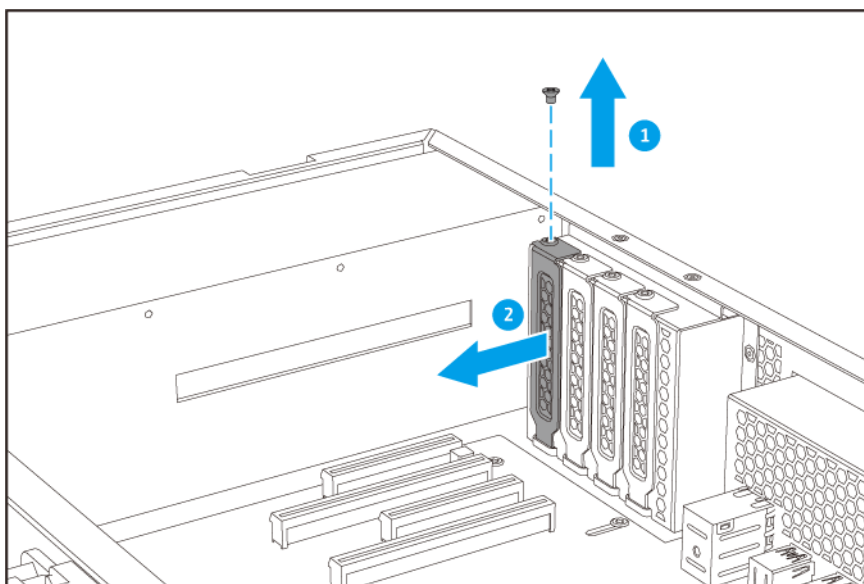


- b.** Slide the top cover back using the handle.

- c.** Lift the top cover up.

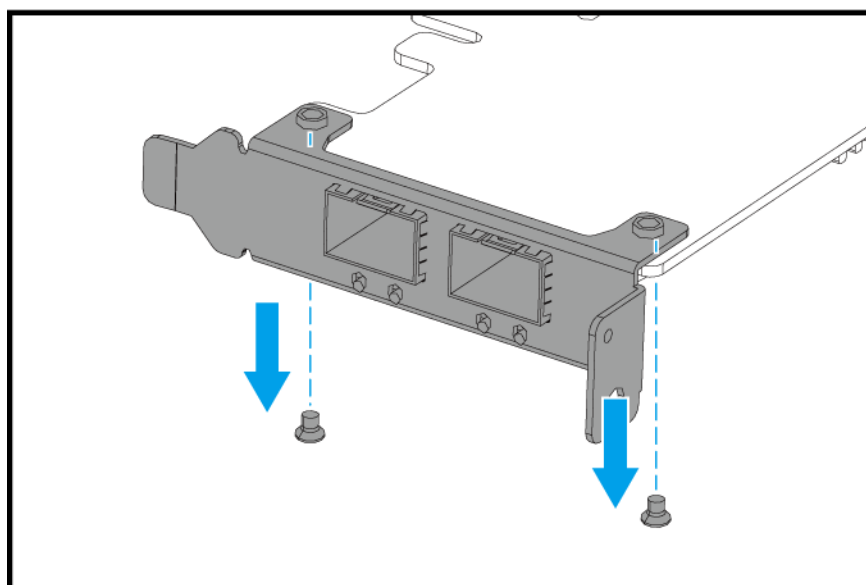
**6. Remove the PCIe cover.**

- a.** Remove the screw that secures the cover to the bracket.
- b.** Pull the cover away from the slot.



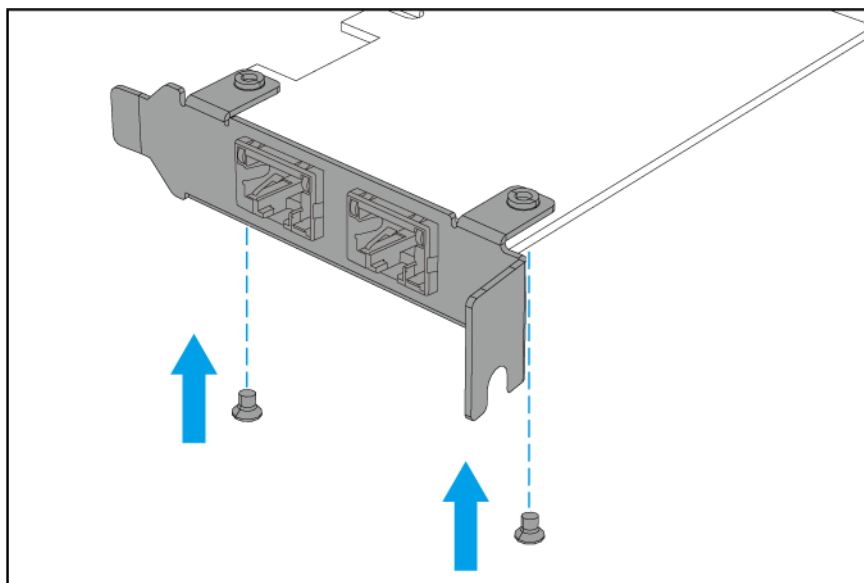
7. Optional: Attach the QNAP bracket to the expansion card.

a. Remove all screws of the existing bracket.



b. Carefully pull the bracket away from the card.

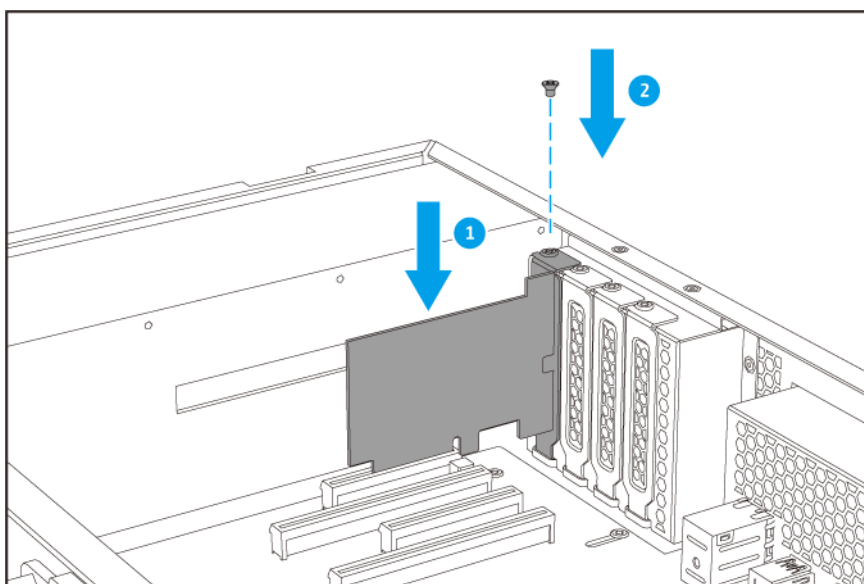
- c. Attach the QNAP bracket to the card using the same screws.



- d. Verify that the bracket does not move.

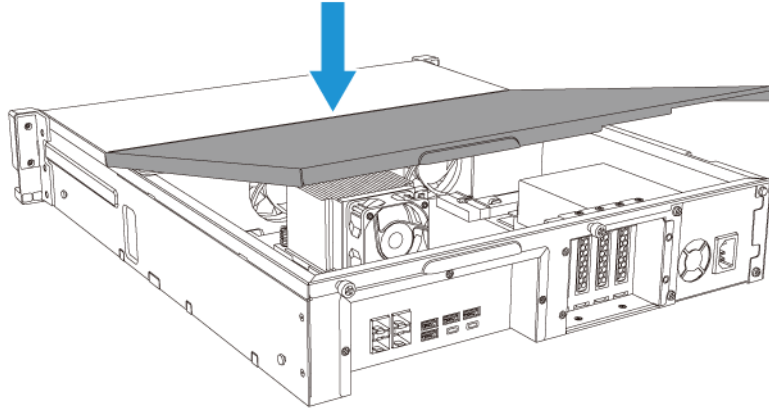
8. Install the expansion card.

- a. Hold the card by the edges.
b. Insert the card into the slot.
c. Attach the screw.

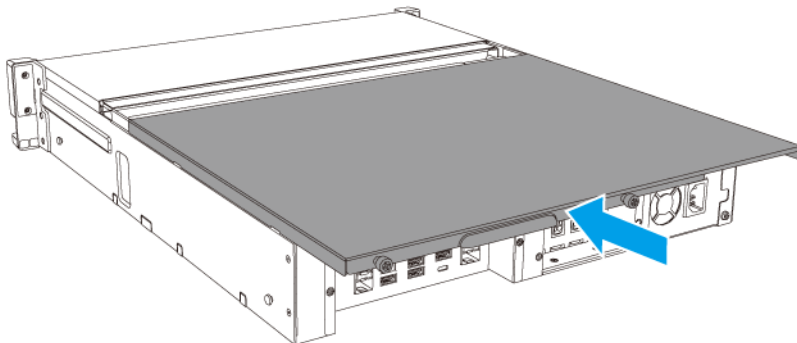


9. Attach the top cover.

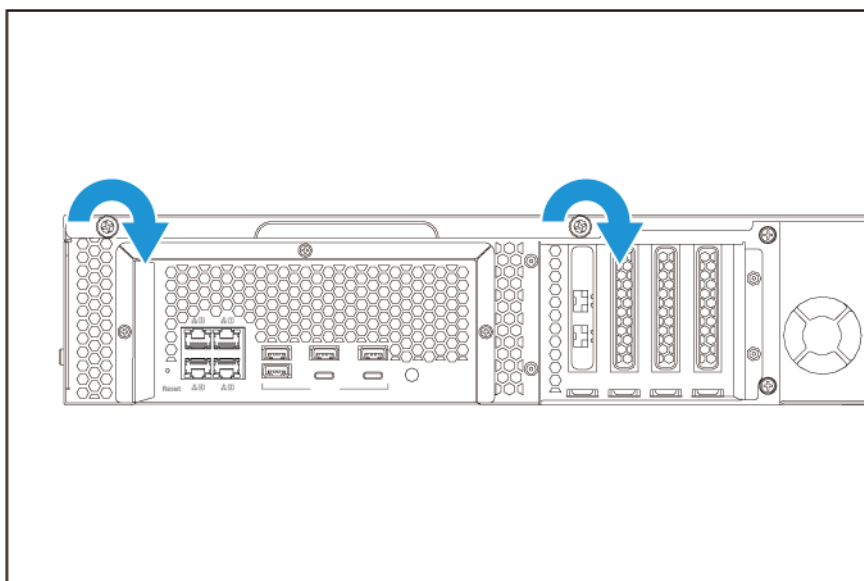
- a.** Place the top cover on the NAS.



- b.** Slide the top cover forwards.



- c. Tighten the screws.



10. Connect all cables and external attachments.
11. Connect the power cord to the electrical outlet.
12. Power on the NAS.

Rail Kits

Rail kits are not included with the NAS and must be purchased separately. For details, contact an authorized reseller or go to <http://shop.qnap.com>.

The TS-x83XU is compatible with the following rail kit models:

Model	Compatible Rail Kit
<ul style="list-style-type: none"> • TS-883XU • TS-883XU-RP • TS-1283XU-RP 	RAIL-B01, RAIL-B02

You can find installation information in the rail kit package.

Replacing Memory Modules

The NAS has four memory slots. You can increase the memory capacity of the NAS by upgrading the memory module.

Use only QNAP modules of the same type and capacity to maintain system performance and stability. You can purchase QNAP memory modules from authorized resellers.

Important

Ensure the following when replacing memory modules:

- When installing only one module, use slot 1.
- When installing two modules, use slots 1 and 3. Ensure that the modules are identical.
- When installing four modules, use slots 1 and 3 for the first pair, and slots 2 and 4 for the second pair. Ensure that each pair uses identical modules.

For details on slot numbering, see [System Board](#).

Warning

- Only qualified personnel should perform the following steps. Failure to follow instructions can result in serious injury or death.
- Observe electrostatic discharge (ESD) procedures to avoid damage to components.



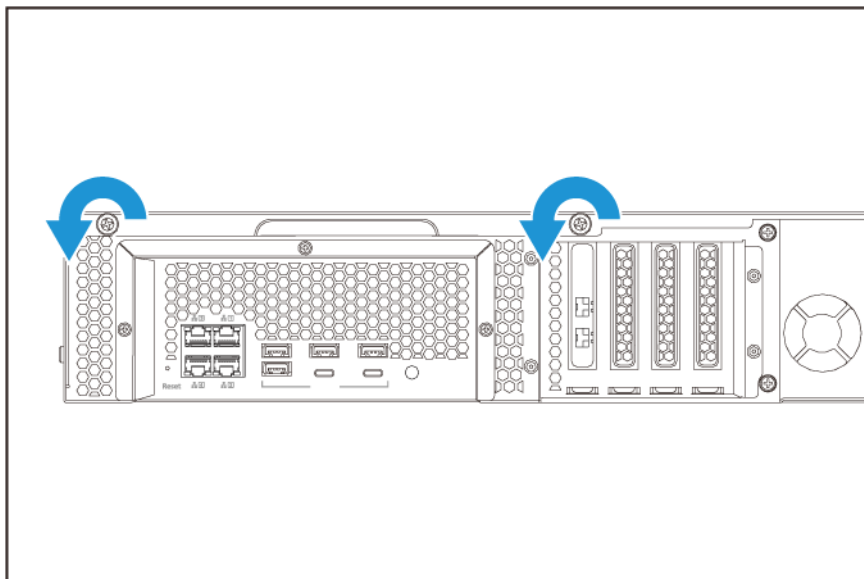
- **Moving fan blades:** Keep your hands and other body parts away from moving fan blades.



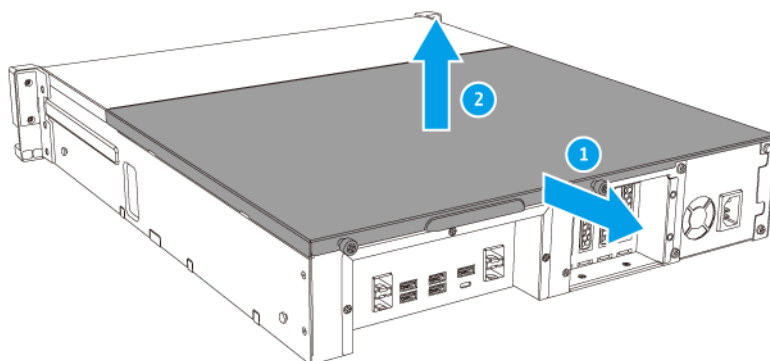
- **Other moving components:** Keep your hands and other body parts away from other moving components.

1. Power off the NAS.
2. Disconnect the power cord from the electrical outlet.
3. Disconnect all cables and external attachments.

4. Remove the top cover.
 - a. Loosen the two screws on the back of the top cover.



- b. Slide the top cover back using the handle.
 - c. Lift the top cover up.

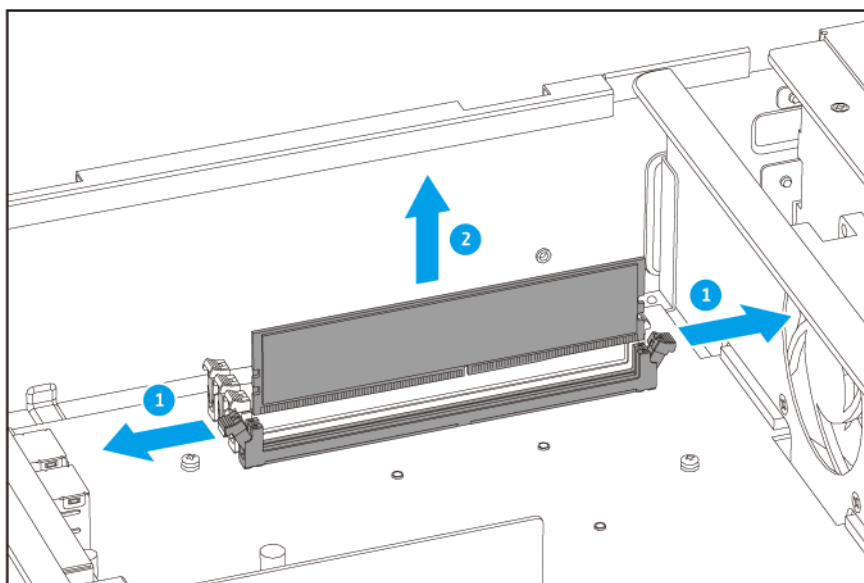


5. Remove an existing module.
 - a. Push the retention clips outward simultaneously to release the module.

Warning

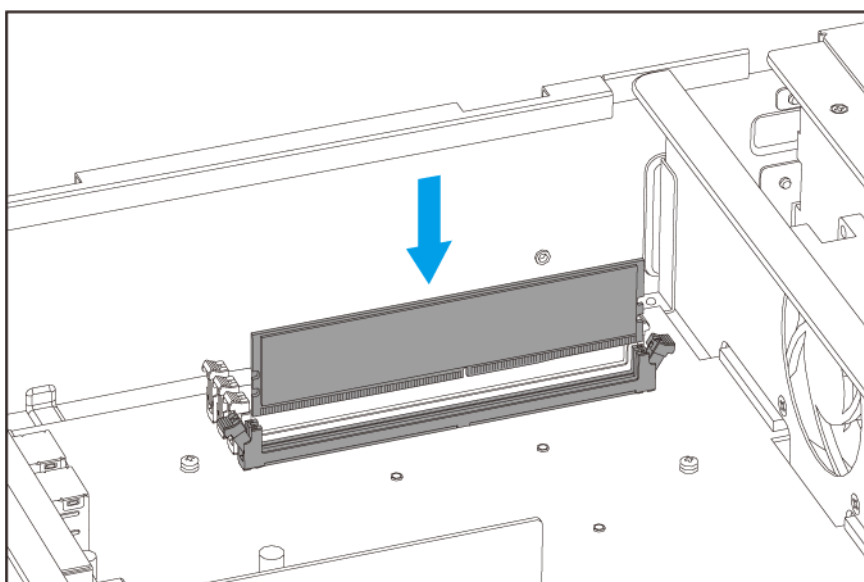
Attempting to remove a module that is not completely released may damage the module and the motherboard.

- b.** Hold the module by the edges and then carefully slide it out of the slot.



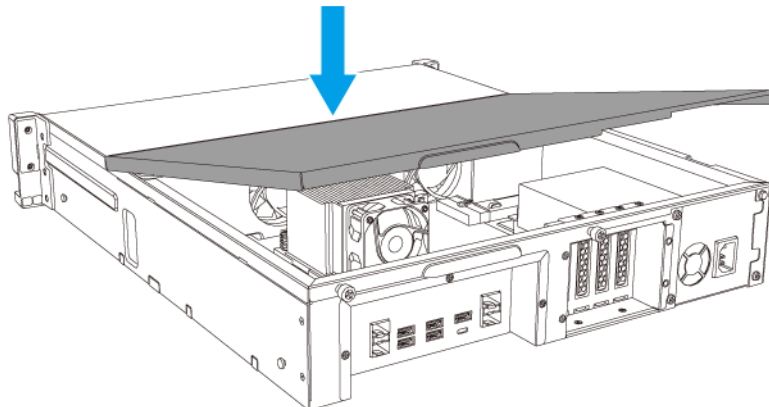
6. Install a new module.

- a.** Align the notch with the ridge in the slot.
- b.** Insert the module into the slot.
- c.** Verify that the metal connectors are completely inserted into the slot.
- d.** Carefully press down on the module until the retention clips lock the module into place.

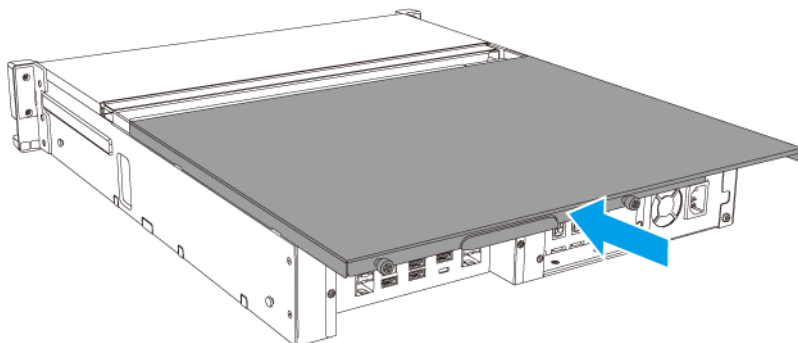


7. Attach the top cover.

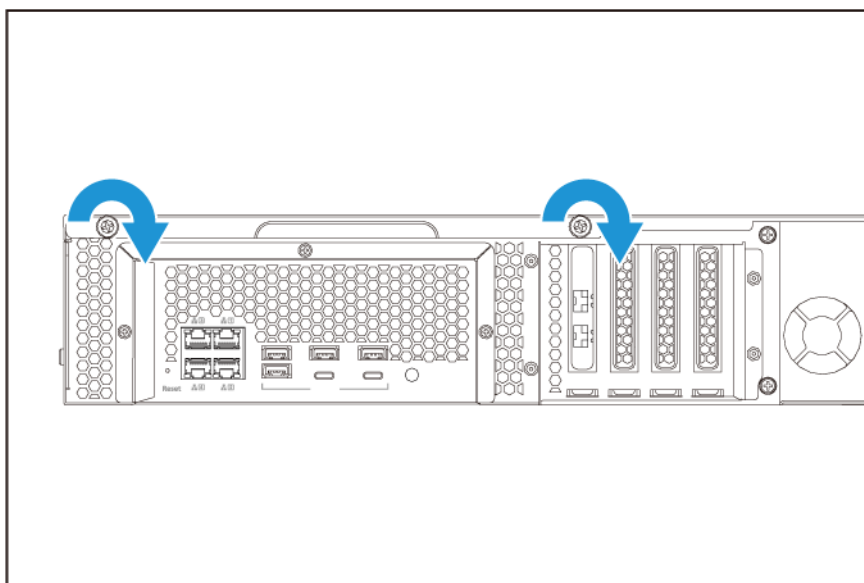
- a.** Place the top cover on the NAS.



- b.** Slide the top cover forwards.



- c. Tighten the screws.



8. Connect all cables and external attachments.
9. Power on the NAS.
10. Verify that the module is recognized by the NAS.
 - a. Log on to QTS as administrator.
 - b. Go to **Control Panel > System > System Status > Hardware Information**.
 - c. Check the value for **Total memory**.

QTS Installation

The TS-x83XU uses the QNAP QTS operating system. You can install QTS using any of the following methods.

Method	Description	Requirements
Qfinder Pro installation (Recommended)	<p>If the NAS is connected to your local area network, you can do the following:</p> <ul style="list-style-type: none"> • Locate the NAS using Qfinder Pro. • Complete the steps in the Smart Installation Guide wizard. <p>For details, see Installing QTS Using Qfinder Pro.</p>	<ul style="list-style-type: none"> • Computer • Network cable • Qfinder Pro installer

Method	Description	Requirements
Cloud installation	<p>If the NAS is connected to the internet, you can do the following:</p> <ul style="list-style-type: none"> • Scan the QR code on the NAS. • Log into your myQNAPcloud account. • Use CloudLink to remotely access your NAS. • Complete the steps in the Smart Installation Guide wizard. <p>For details, see Installing QTS Using the Cloud Key.</p>	<ul style="list-style-type: none"> • Computer or mobile device • Network cable • myQNAPcloud account • CloudKey

Installing QTS Using Qfinder Pro

Warning

Installing QTS deletes all data on the drives. Back up your data before proceeding.

1. Power on the NAS.
2. Connect the NAS to your local area network.
3. Run Qfinder Pro on a computer that is connected to the same local area network.

Note

To download Qfinder Pro, go to <https://www.qnap.com/utilities>.

4. Locate the NAS in the list and then double-click the name or IP address.
The **Smart Installation Guide** opens in the default web browser.
5. Click **Start Smart Installation Guide**.
6. Specify the following information.
 - **NAS name:** Specify a name with 1 to 14 characters. The name supports letters (A to Z, a to z), numbers (0 to 9), and hyphens (-), but cannot end with a hyphen.
 - **Password:** Specify an administrator password with 1 to 64 characters. The password supports all ASCII characters.
7. Click **Next**.

- Specify the time zone, date, and time.

Tip

QNAP recommends connecting to an NTP server to ensure that the NAS follows the Coordinated Universal Time (UTC) standard.

- Click **Next**.
- Select **Obtain an IP address automatically (DHCP)**.
- Click **Next**.
- Select the types of devices that you will use to access shared folders on the NAS.
- Click **Next**.
- Review the settings.
- Click **Apply**.
A confirmation message appears.

Warning

Clicking **Confirm** deletes all data on the drive before installing QTS.

- Click **Confirm**.
QTS is installed.

Installing QTS Using the Cloud Key

Warning

Installing QTS deletes all data on the drives. Back up your data before proceeding.

- Power on the NAS.
- Connect the NAS to the internet.
- Go to the QNAP Cloud Installation page using one of the following methods:
 - On your computer, go to <http://install.qnap.com/>.
 - Scan the QR code on the NAS using a mobile device.

The web page lists all the uninitialized QNAP NAS devices on the local network.

4. Find your NAS from the list and then click **Initialize**.

Note

If your NAS is not listed, follow the instructions on the web page to specify the Cloud Key on the NAS.

The installation wizard opens in the default web browser.

5. Create an account or sign in to myQNAPcloud.

Note

You must return to this page to complete the installation after creating an account.

6. Specify the myQNAPcloud device name for the NAS.

Note

- The myQNAPcloud device name is used when remotely accessing the NAS.
- For security purposes, the CloudLink remote connection service will be disabled on your NAS after initialization. You can enable it by connecting to QTS through LAN and then installing CloudLink.

7. Click **Next**.

The **Smart Installation Guide** opens in the default web browser.

8. Click **Start Smart Installation Guide**.

9. Specify the following information.

- **NAS name:** Specify a name with 1 to 14 characters. The name supports letters (A to Z, a to z), numbers (0 to 9), and hyphens (-), but cannot end with a hyphen.
- **Password:** Specify an administrator password with 1 to 64 characters. The password supports all ASCII characters.

10. Click **Next**.

11. Specify the time zone, date, and time.

Tip

QNAP recommends connecting to an NTP server to ensure that the NAS follows the Coordinated Universal Time (UTC) standard.

12. Click **Next**.

13. Select **Obtain an IP address automatically (DHCP)**.

14. Click **Next**.

15. Select the types of devices that you will use to access shared folders on the NAS.

16. Click **Next**.
17. Review the settings.
18. Click **Apply**.
A confirmation message appears.

Warning

Clicking **Confirm** deletes all data on the drive before installing QTS.

19. Click **Confirm**.
QTS is installed.

4. Basic Operations

This chapter describes basic NAS operations.

Power Button

Operation	User Action	Result
Power on	Press the button once.	The NAS powers on.
Power off	Press and hold the button for 1.5 seconds.	The NAS powers off.
Force power off	Press and hold the button for 5 seconds.	The NAS shuts down. Important Use this method only when the NAS is unresponsive.

Reset Button

Important

To protect your device from brute force attacks, QNAP recommends disabling the default `admin` account after a system reset. To disable the default `admin` account, you must first create a new administrator account, log out of the `admin` account, and then log in with the new account.

Operation	User Action	Result
Basic system reset	Press and hold the button for 3 seconds.	<p>The following settings are reset to default:</p> <ul style="list-style-type: none"> • The <code>admin</code> account is automatically enabled. • System administrator password: For details on the default password, see this FAQ. • TCP/IP configuration: <ul style="list-style-type: none"> • Obtain IP address settings automatically via DHCP • Disable jumbo frames • If port trunking is enabled (multi-LAN models only), the port trunking mode is reset to "Active Backup (Failover)". • System port: 8080 (system service port) • Security level: Low (Allow all connections) • LCD panel password: (blank) • VLAN: Disabled
Advanced system reset	Press and hold the button for 15 seconds.	<p>The default factory settings are restored.</p> <ul style="list-style-type: none"> • To retrieve old data after an advanced system reset, recreate the previous folder structure on the NAS.

LEDs

LEDs indicate system status and related information when the NAS is powered on. The following LED information applies only when the drive is correctly installed and when the NAS is connected to the network.

For details on the location of the LEDs, see [Components](#).

LED	Status	Description
System Status	Flashes green and red alternately every 0.5 seconds	<ul style="list-style-type: none"> • The drive is being formatted. • The NAS is being initialized. • The operating system is being updated. • RAID rebuilding is in progress. • Online RAID Capacity Expansion is in progress. • Online RAID Level Migration is in progress.
	Red	<ul style="list-style-type: none"> • The drive is invalid. • The disk volume has reached its full capacity. • The disk volume is about to reach its full capacity. • The system fan is not functioning. • An error occurred when accessing (read/write) the data. • A bad sector is detected on the hard drive. • The NAS is in degraded read-only mode (two member drives failed in RAID 5 or RAID 6 but the data can still be read). • A hardware self-test error occurred.
	Flashes red every 0.5 seconds	The NAS is in degraded mode (one member drive failed in RAID 1, RAID 5, or RAID 6).
	Flashes green every 0.5 seconds	<ul style="list-style-type: none"> • The NAS is starting up. • The NAS is not configured. • A drive is not formatted.
	Green	The NAS is ready.
	Off	All drives are in standby mode.
LAN	Orange	A read/write error occurred while another device is accessing data.
	Flashes orange	The NAS is being accessed from the network.

LED	Status	Description
Drive	Flashes red	The drive is being accessed and a read/write error occurs during the process.
	Red	A drive read/write error has occurred.
	Flashes green	The data is being accessed.
	Green	The drive can be accessed.
Expansion	Orange	<ul style="list-style-type: none"> A SAS JBOD expansion unit has been detected. A REXP expansion unit has been detected.
	Off	No JBOD expansion unit has been detected.

Note
The expansion unit LEDs do not apply to 9-bay models.

Audio Alert

Duration	Frequency	Description
Short beep (0.5 seconds)	1	<ul style="list-style-type: none"> The NAS is starting up. The NAS is shutting down (software shutdown). The user pressed the Reset button. The operating system was updated.
	3	The user tried to copy the NAS data to the external storage device from the front USB port, but the data cannot be copied.
Long beep (1.5 seconds)	3 (every 5 minutes)	The system fan is not functioning.
	2	<ul style="list-style-type: none"> The disk volume is about to reach its full capacity. The disk volume has reached its full capacity. The drives are in degraded mode. The user started the drive rebuilding process. A drive is plugged in or out.

Duration	Frequency	Description
Long beep (1.5 seconds)	1	<ul style="list-style-type: none">• The NAS was powered off by force shutdown (hardware shutdown).• The NAS was powered on successfully and is ready.

5. Troubleshooting

This chapter describes basic troubleshooting information.

Forcing Qfinder Pro or myQNAPcloud to Locate the NAS

If Qfinder Pro or myQNAPcloud is unable to locate the NAS during QTS installation, the drives or data may be faulty.

1. Power off the NAS.
2. Remove all drives.
3. Power on the NAS.
4. Locate the NAS using Qfinder Pro or myQNAPcloud.
5. Reinsert the drives.
6. Continue with the QTS installation.

Hot-swapping Failed Drives

The NAS supports hot-swapping of drives in the following situations:

- RAID 1: One member drive fails
 - RAID 5: One member drive fails
 - RAID 6: One or two member drives fail
1. Log on to QTS.
 2. Go to **Main Menu > Storage Manager > Storage > Disks/VJBOD**.
 3. Locate the failed drive.
 4. Prepare a new hard drive with a capacity that is the same as or larger than the failed hard drive.
 5. Remove the failed drive from the NAS.
 6. Wait for 20 seconds or until the NAS beeps twice.
 7. Remove the failed drive from the drive tray.
 8. Insert the new drive into the drive tray.
 9. Install the new drive.
The NAS beeps twice.
 10. Go to **Main Menu > Storage Manager > Storage Space**.
 11. Locate the volume that contains the new drive and then verify that the status is `Rebuilding`.

Support and Other Resources

QNAP provides the following resources:

Resource	URL
Documentation	http://docs.qnap.com
Helpdesk	http://helpdesk.qnap.com
Downloads	http://download.qnap.com
Community Forum	http://forum.qnap.com

6. Glossary

CloudKey

Unique 8-digit code assigned to each NAS device

CloudLink

Enables you to access the NAS over the internet without configuring complex port forwarding settings

myQNAPcloud

Provides various remote access services such as DDNS and CloudLink

myQNAPcloud ID

Email address that was used to register for a myQNAPcloud account

Qfinder Pro

Enables you to locate and access the QNAP NAS devices in your local area network

QTS

QNAP NAS operating system

7. Notices

This chapter provides information about warranty, disclaimers, licensing, and federal regulations.

Limited warranty

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Version 3, 29 June 2007

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The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

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part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

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FCC Class A Notice



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Note

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壳体	0	0	0	0	0	0
显示	0	0	0	0	0	0
印刷电路板	0	0	0	0	0	0
金属螺帽	0	0	0	0	0	0
电缆组装	0	0	0	0	0	0
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